

IN THE SPECIFICATION

Presented below are specification changes showing the changes made.

Please replace paragraph [0034] with the following amended paragraph:

[0034] FIG. 3 shows an embodiment where MTX 200 of FIG. 1 is represented by using two stage-0 scalable non-blocking switching networks 330 and 320 with $M=Ma+Mb=10$ conductors 301-310 composed of subgroups $Ma = [A0-A4]=5$ 301-305 conductors and $Mb = [B0-B4]=5$ 306-310 conductors. Each $Na=Nb=2$ for the upper two input conductors of each of the four logic cells (composed of conductors 101-102 for cell 10, conductors 105-106 for cell 20, conductors 109-110 for cell 30 and conductors 113-114 for cell 40) and $Nb=Na=2$ for the lower two input conductors for each of the k-four logic cells (composed of conductors 103-104 for cell 10, conductors 107-108 for cell 20, conductors 111-112 for cell 30 and conductors 115-116 for cell 40). A full sized stage-0 scalable non-blocking switching network of FIG. 3 would have $(M-N+1)=10-4+1=7$ program controlled switches per input conductor. Instead, in the embodiment of FIG. 3, the number of input switches is only four because of the separate Ma conductors and Mb conductors (with $Ma=Mb=5$) and the number N is broken into two parts (with $Na=Nb=2$). As such, the number of program controlled switches per input conductor in network 330 is $Ma-Na+1=5-2+1=4$ and the use of program controlled switches per input conductor in network 320 is $Mb-Nb-1=4$. While it is true that the Ma 301-305 conductors connecting to the upper-lower two inputs of the four logic cells using network 330 maintain the connectivity illustrated in FIG. 2 (and similar for Mb conductors 306-310 to the lower upper two inputs of the four logic cells using network 320), it is not true that any arbitrary

use of [A0-A4], [B0-B4] to fan-in to the four logic cells is so. This constraint prevents arbitrary assignments of M conductors connecting to the N conductors through the two 0-SNs 320 and 330 of FIG. 3. However, the stage-0 scalable non-blocking switching networks 320 and 330 together can be an economic implementation to provide good connectivity for a programmable logic circuit while the software efforts in book-keeping and tracking the allowable M conductors usage are more complex than the scheme of FIG. 2. FIG. 3 allows at least eight M conductors out of ten to be arbitrarily connected to the inputs of the four logic cells, where each one conductor connecting to one input to each of the four logic cells using networks 320 and 330; the constraint here is that the ten conductors can not be arbitrarily assigned as in the FIG. 2 case.